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AN INCREASED RISK OF DEPRESSIVE SYMPTOMS BY A LARGE NUMBER OF STRESSFUL LIFE EVENTS: RISK ASSESSMENT IN LONG QT SYNDROME

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Tuesday, April 05, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Genetic Associations with Cardiovascular Phenotypes and Endophenotypes

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Background. Environmental stress frequently precipitates ventricular arrhythmias in long QT syndrome (LQTS) which may lead to syncope and sudden death. We examined the relationship between the number of major stressful life events and depressive symptoms in LQTS mutation carriers.

Methods. Participants (n=527) were LQTS mutation carriers with molecularly established KCNQ1, KCNH2 or SCN5A mutations, respectively. Stressful life events were indexed by major stressful experiences, e.g. death of a family member and physical violence. Depressive symptoms were measured with a modified version of the Beck's Depression Inventory.

Results. The results of age and sex adjusted binary logistic regression analysis showed that the level of depressive symptoms was significantly higher among symptomatic LQTS patients if they had experienced a large number of stressful life events (OR 2.05; 95% CI 1.21 to 3.74). Among the asymptomatic LQTS mutation carriers there were no differences in the level of depressive symptoms by the number of stressful life events (OR 1.45; 95% CI 0.93 to 2.24).

Conclusion. The results showed that LQTS mutation carriers with arrhythmic events have an increased risk of depressive symptoms by a large number of major stressful life events. Major stressful life events and depressive symptoms should be taken into account in the risk assessment in LQTS.